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The economics of abortion: A scoping review protocol

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Title

The economics of abortion: A scoping review protocol

Authors

Corresponding author:

Ernestina Coast, PhD; Department of International Development, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, United Kingdom; e.coast@lse.ac.uk, tel. +44 20 7955 6335

Co-authors:

Samantha R. Lattof, PhD; Department of International Development, London, United Kingdom

Yana van der Meulen Rodgers, PhD; Department of Labor Studies and Employment Relations; Department of Women's and Gender Studies; Rutgers University, Piscataway, New Jersey, USA

Brittany Moore, MS; Ipas, Chapel Hill, North Carolina, USA

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Abstract

Introduction

Abortion is a common feature of people's reproductive lives. However, the economic implications of abortion and policies affecting abortion provision are poorly understood. This scoping review aims to systematically review social science literature for studies that have investigated the impact of abortion-related care (i.e., un/safe abortion, post-abortion care) on economic outcomes at the micro- (individual, household), meso- (community, health system), and macro- (country) levels. Informed by the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) reporting guideline for protocols, this protocol details the scoping review's methodological and analytical approaches.

Methods and analysis

This scoping review will utilize the PRISMA extension for Scoping Reviews (PRISMA-ScR) tool. For inclusion, studies must examine one of the following economic outcomes at the micro-, meso-, and macro-levels: costs of abortion-related care, benefits of abortion-related care, impacts of abortion-related care, and/or value of abortion-related care. Searches will be conducted in eight electronic databases. We will conduct the searches and application of inclusion/exclusion criteria according to the PRISMA-ScR flow approach. No assessments of items' quality will be made, as the purpose of this scoping review is to synthesize and describe the coverage of the evidence. After extracting all data, we will inductively develop an economic framework around the economics of abortion. The analysis will synthesize the evidence base and identify knowledge gaps on the costs and benefits of abortion to stakeholders at various levels.

Ethics and dissemination

Formal ethical approval is not required, as primary data will not be collected in this study. The findings of this study will be disseminated through peer-reviewed publications, conference presentations, and condensed summaries for key stakeholders and partners in the field.

Strengths and limitations of this study

- This scoping review protocol is the first to focus on the economic costs, benefits, and impacts of abortion at the individual, household, and societal levels.
- We use the PRISMA extension for Scoping Reviews (PRISMA-ScR) tool, the most current guidance on conducting scoping reviews, in order to ensure a systematic approach to searching, screening, and reporting.
- This study will search journals from interdisciplinary fields in order to maximise heterogeneity in the results.
- The protocol includes a comprehensive data extraction template that addresses the multiple channels through which abortion can entail economic costs and benefits.
- This scoping review may miss studies published outside of journals (e.g., book chapters, in-service reports, and other grey literature).

Introduction

Abortion is a common feature of people's reproductive lives. An estimated 56 million induced abortions occur annually,¹ of which 54.9% (range 49.9%-59.4%, 90% C.I.) are unsafe.² Abortion care is a landscape in flux,³ with rapid increases in access to and use of pharmaceuticals to induce abortion⁴ and shifting national and international laws, policies, treaties, protocols and funding provision.^{5,6} However, the economic implications of abortion – and policies affecting abortion provision⁷ – are poorly understood. Relatively little evidence is of use to policymakers and influencers.⁸

A socio-ecological framework identifies three levels of factors – micro (women and households), meso (communities and health systems) and macro (societies and nation states) – that help to understand the factors influencing abortion-related care.⁹ These three levels can also be used to consider the consequences of abortion-related care. There is increased recognition of the scale and consequences of unsafe abortion, including the costs for both women and health systems, in a range of legal settings.¹⁰ At the macro level, the total cost of post-abortion care to public health systems in many countries is likely to be substantial. Vlassoff et al. estimate that US\$171 million is spent annually to treat abortion complications in Africa.¹¹ In Zambia, post-abortion care following an unsafe abortion can cost the health system 2.5 times more than safe abortion care.¹²

At the micro-level, inequalities in accessing abortion-related care have been identified in many settings and are associated with multiple individual characteristics including, but not limited to, economic circumstances (e.g., Ostrach and Cheyney 2014¹³). A review of 28 studies on post-abortion care costs in Africa concluded that studies that addressed indirect costs (e.g., loss of productivity) were 'conspicuous by their absence'.^{8, p. 58} Most research focuses on out-of-pocket expenses that women incur for abortion complications. A Nigerian study of the direct costs for women treated for complications of unsafe abortion estimated that nearly three quarters of costs were shouldered by the woman and/or her household.¹⁴ A study from Burkina Faso found that the cost of induced abortion was considerably higher than spontaneous abortion,¹⁵ and this study did not account for any costs incurred by women prior to hospitalization.

Most studies do not consider the wider economic impact of abortion care seeking, such as opportunity costs (e.g., foregone work or education), and few studies include costs incurred throughout the care-seeking process beyond what is paid in hospital. Studies of two Asian countries considered women's loss of time and income.^{16, 17} Both found substantial losses for the women and their households. A study from Mozambique found the costs (treatment and opportunity costs) of safe abortion were considerably higher than post-abortion care following unsafe abortion because of high hospital fees for safe abortion, which also acted as an incentive to seek unsafe abortion.¹⁸ Sundaram et al.'s study of the costs of abortion care seeking in Uganda calculated the impact of associated expenses on the productivity of women and other family members, as well as households' economic responses to unsafe abortion (e.g., sales of assets).¹⁹ They found that three quarters of women suffered loss of productivity, and over a third experienced deterioration in their economic circumstances following unsafe abortion.

Rationale

We know relatively little globally about the individual-level economic burden of seeking and procuring abortion. Costs for individuals and their households do not start at point of treatment; rather, costs are incurred directly and indirectly throughout the treatment pathway (e.g., transport, food, accommodation, loss of income).^{20 21} Further, costs borne by the poorest women with the least access to contraception and fewest resources are especially high, though infrequently considered. Given these constraints, women's ability to access resources to procure an abortion is important in every setting. Social and emotional support for or against abortion-related care is linked to whether, and to whom, the pregnancy is disclosed. A friend or partner providing support may influence the location and type of abortion.²²

Access to financial resources, frequently linked to social support, may be critical to a woman's ability to obtain abortion information and services. In Latin American countries where abortion is illegal, access to financial resources and emotional support were critical for accessing a medically-supervised medical abortion in a clandestine clinic.²³ One quarter of urban Mozambican women who sought a first trimester termination at a public hospital delayed care in order to have sufficient funds to pay user fees.²⁴ A pregnancy has short- and long-term direct and indirect costs for women; these may be exacerbated when the pregnancy is unintended.²⁵ Individual circumstances influence whether abortion provides a better outcome for a woman than bearing a child at that time, and women give many reasons for having an abortion. For example, in Bangladesh, women and their husbands described challenging life circumstances (poor health, poverty) that influenced their decisions to terminate.²⁶ These examples from Latin America, Africa, and Asia bolster the case for making a concerted effort to document the costs to women, households, and societies of seeking and obtaining abortions.

Economists have paid some attention to the relationship between abortion and various economic outcomes at the meso- and macro-levels. Much of this literature focuses on the economic impacts of abortion legalization rather than the pecuniary costs of abortion. Several studies have linked the legalization of abortion to increases in women's labor supply. For example, Kalist found that by reducing unplanned pregnancies, legalization of abortion in the U.S. led to increased labor force participation rates for women, especially for single black women.²⁷ Bloom et al. took this point one step further and found that lower fertility (instrumented by the legalization of abortion) increases women's labor supply and contributes positively and significantly to GDP growth.²⁸ Not only do abortion regulations impact women's labor supply, but they also affect occupational mobility. In particular, Targeted Restrictions on Abortion Providers (TRAP) laws in the United States make it more difficult for women to seek an abortion and are linked to increased 'job lock;' consequently, women living in states with TRAP laws are less likely to move between occupations and into higher-paying occupations.²⁹ The authors also find that public funding for medically necessary abortions is associated with full-time occupational mobility for women.

The legalization of abortion is also linked to various measures of children's human capital. Several statistical studies have found positive outcomes for children born after the legalization of abortion. In a widely-cited and somewhat controversial study for the U.S.,

1
2
3 Donohue and Levitt found that crime rates across states appear to have dropped as a result
4 of *Roe v. Wade*.³⁰ Children who were born unwanted before the legalization of abortion
5 grew up in more disadvantaged households and they also grew up to be more
6 disadvantaged as adults. With similar reasoning, Ananat et al. found that U.S. children born
7 after the Supreme Court's 1973 *Roe v Wade* ruling were more likely to graduate from
8 college and less likely to be welfare recipients or single parents.³¹ Children's outcomes may
9 have improved on average because they were more likely to be born into a household in
10 which they were wanted. Romania's abortion ban is associated with worse educational
11 outcomes and labor market achievements of children born after the ban.³² And in Sub-
12 Saharan Africa, abortion law liberalization is linked to greater parental investment in girls'
13 schooling, with the rationale that access to abortion lowers the likelihood of a girl child
14 dropping out of school in the event of an unplanned pregnancy.³³

18 Scoping review objectives

21 We lack synthesis of the known economic consequences – at a variety of scales – of
22 abortion-related care. We aim to systematically review social science literature for studies
23 that have investigated the impact of abortion-related care – un/safe abortion, post-abortion
24 care – on economic outcomes, at the micro-, meso-, and macro-levels.

27 Informed by the Preferred Reporting Items for Systematic reviews and Meta-Analyses
28 (PRISMA) reporting guideline for protocols,³⁴ this protocol details our pre-planned
29 methodological and analytical approaches.

33 Methods and analysis

36 Since we are interested in examining what is known about the economic consequences of
37 abortion-related care and we expect to uncover varied evidence on this topic, we will
38 conduct a scoping review. Like systematic reviews, scoping reviews use a systematic
39 approach to searching, screening, and reporting.³⁵ Our scoping review will utilize the
40 PRISMA extension for Scoping Reviews (PRISMA-ScR) tool. Published in October 2018, this
41 innovative checklist is the most up-to-date guidance on conducting scoping reviews.³⁵

44 Inclusion/exclusion criteria

46 Studies published in peer-reviewed journals on induced abortion and/or post-abortion care
47 in any world region will be considered, provided that they report on qualitative or
48 quantitative data.^a More specifically, these data must examine one of the following
49 economic^b outcomes at the micro-, meso-, and/or macro-levels:

- 51 • Economic costs^c of abortion care or abortion policies

54 ^a These data may include policy and legal documents.

56 ^b Our approach includes economic outcomes related to human capital and women's reproductive
57 labor that are not directly quantified in monetary terms. Such outcomes could include
58 education, fertility, mothering, and care work.

59 ^c 'Economic costs' refer to the amount paid to obtain abortion care or adverse financial outcomes
60 resulting from the implementation of abortion policies.

- Economic benefits^d of abortion care or abortion policies
- Economic impacts^e of abortion care or abortion policies
- Economic value^f of abortion care or abortion policies

As indicated in the PICOTS criteria in Table 1, the screening criteria differ depending on the level (micro-, meso-, macro-) at which the study occurred. Specifically, the population changes to account for the fact that we are examining evidence from the individual level to the national level.

Items must be published in peer-reviewed journals or in the National Bureau of Economic Research's (NBER) peer-reviewed working paper series, which is considered to be a gold standard in the field of economics. Any NBER working paper that is subsequently published in a peer-reviewed journal will only be considered in its final published version.

Items must be published in English, French, Spanish, Dutch, or German. This review includes studies published from 1 September 1994 to 15 January 2019.

^d 'Economic benefits' refer to the advantages or profits gained from receiving abortion care or from the implementation of abortion policies.

^e 'Economic impacts' refer to the economic effect or influence of abortion care or abortion policies.

^f 'Economic value' refers to the importance, worth, or usefulness of receiving abortion care or of the implementation of abortion policies.

Table 1. PICOTS criteria used in the scoping review

PICOTS	Micro-level	Meso-level	Macro-level
Populations	Girls and women who obtained abortions or post-abortion care and members of their households	Communities and health systems in which girls and women obtain abortions or post-abortion care	Societies and nation states in which girls and women obtain abortions or post-abortion care
Interventions	Induced abortion (safe/unsafe), post-abortion care, and/or abortion policies		
Control	None		
Outcomes	Quantitative or qualitative data on: - economic costs of abortion care or abortion policies - economic impacts of abortion care or abortion policies - economic benefits of abortion care or abortion policies - economic value of abortion care or abortion policies		
Timeframe	1 September 1994 to 15 January 2019		
Setting	Any		

Items will be excluded if they focus on missed abortion, threatened abortion, or miscarriage. In addition, we will exclude policy briefs, books, book chapters, editorials, commentaries, and published or unpublished reports from governments and other agencies. By limiting included items to peer-reviewed journal articles that have been subjected to the scrutiny of other experts in the field, we increase the possibility that our scoping review will include items with lower likelihood of the inclusion of errors.³⁶

Search strategy and terms

After first assessing electronic databases for their relevance and coverage of the literature, we selected eight electronic databases for searching:

- Cumulative Index to Nursing and Allied Health (CINAHL)
- EconLit
- Excerpta Medica Database (EMBASE)
- International Bibliography of the Social Sciences (IBSS)
- JSTOR
- PubMed
- ScienceDirect
- Web of Science

These sources will be searched using combinations of relevant search terms that we developed and tested for sensitivity in advance of the scoping review. The terms, detailed in Table 2, will be adapted to the basic search particulars (e.g., wildcards (*) and truncations, capacity for complex searches) of each electronic database. We will supplement these searches with expert-recommended articles. To obtain these articles, we will develop a standardized email asking for suggested articles that we will send to a list of abortion researchers. Any suggested articles will be incorporated into our PRISMA flowchart.

Table 2. Search terms and their combinations

1. Abortion terms	2. Economic terms	3. Impact terms
abort*	cost*	cost*
termination of pregnancy	econom*	benefit*
terminate pregnancy	price*	value*
pregnancy termination	financ*	impact*
pregnancy terminations	resource*	
postabortion	fee*	
post-abortion	tax*	
	expenditure*	
	GDP	
	gross domestic product	
	pay*	
	expens*	

Screening process

To ensure compatibility with the standards expected of a scoping review for peer-reviewed publication, we will conduct the searches and application of inclusion/exclusion criteria according to the PRISMA-ScR flow approach.³⁵ No assessments of items' quality will be made, as the purpose of this scoping review is to synthesize and describe the coverage of the evidence.

Once the searches are conducted, all items will be exported into EndNote for screening. After removing duplicates, the remaining items will be screened for inclusion, initially on the basis of title and abstract (TIAB). When inclusion or exclusion cannot be determined on the basis of TIAB, the person screening the item will move the item forward for full-text screening. To assure quality in TIAB screening, EC, EZ, SL, and YR will simultaneously screen 100 randomly selected items for inclusion. Based on our results, we will adjust the inclusion/exclusion criteria as necessary. If the results of our individual screenings differ, we will screen an additional 100 randomly selected items for inclusion on TIAB based on the refined inclusion/exclusion criteria. The process will be repeated until we reach agreement. The remaining items will then be divided amongst the authors for full-text screening.

Data extraction

EC, EZ, SL, and YR will simultaneously extract data into Excel for five randomly selected studies in order to assure quality in data extraction. Following this check for quality assurance, the authors will divide the remaining included studies for data extraction. Data will be extracted on the following categories:

- Background information (e.g., author, date, setting, study objective)
- Population
- Details of relevant outcomes (both quantitative and qualitative) at the micro-, meso-, and macro-levels
 - Financial cost (the amount paid to obtain abortion-related care, including transportation costs and opportunity costs when relevant)

- Impact (the effect or influence of abortion-related care)
- Benefit (advantages or profits gained from receiving abortion-related care)
- Value (the importance, worth, or usefulness of receiving abortion-related care)
- Secondary outcome data on abortion-related stigma, discrimination, and exclusion
- Context in which the study was conducted (e.g., legal status of abortion, culture, gender norms)

A detailed data extraction template is available in Annex A and the accompanying codebook is available in Appendix B.

Data synthesis

After extracting all data, we will inductively develop an economic framework around the economics of abortion. The analysis will synthesize the evidence base and identify knowledge gaps on the costs and benefits of abortion to stakeholders at the micro-, meso-, and macro-levels. At the micro-level, we will provide a comprehensive examination of women's decision-making around contraceptive use, fertility, and abortion. The framework is based on a set of economics tools related to marginal cost and risk avoidance that model women's preferences and behaviors around fertility and abortion, and it generates a number of scenarios showing how changes in the cost and availability of modern contraceptive methods and access to safe abortion can impact pregnancy, abortion, and fertility.

At the meso-level, we will consider the ways in which a woman's context (partnership, household, community, etc.) influences the costs and benefits of abortion, because the extent and direction of the influence of social, economic, demographic and health characteristics depend on context. For example, abortion access for young people who have not reached the age of majority varies by regulations about parental notification, and the role of men's involvement in abortion reflects not only the type of relationships in which the pregnancy occurred but also the gendered norms and roles of the woman's culture.

Finally, at the macro-level, we will explore how prioritizing a broad range of reproductive healthcare services will better serve society at large and will also be more cost effective than current strategies of marginalizing and restricting family planning and abortion services.

Patient and Public Involvement

As a scoping review involving no primary data neither patients nor public were involved in the development of the research question or outcome measures.

Final search strategy by database

The full electronic search strategies for all databases, including limits used, appear below.

CINAHL

Search strategy: We will search all sets of search terms (Table 2).

Search options:

- Search mode: Boolean/phrase
- Limit results:
 - Published date: September 1994 to January 2019

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

EconLit

Search strategy: We will search all sets of search terms (Table 2).

Search options:

- Search mode: Boolean/phrase
- Limit results:
 - Published date: September 1994 to January 2019

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

EMBASE

Search strategy: We will search modified sets of search terms (Table 2) using the multi-field search. Since EMBASE does not recognize the use of quotation marks for multi-word phrases, searches would include results with the word 'of' (from 'termination of pregnancy'). To exclude the 'of' from searches, we will modify the abortion-related search terms, as detailed below. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Publication year: 1994 – 15 January 2019

Search terms: (abort* OR postabortion OR post-abortion OR (terminat* AND pregnancy)) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP

OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

IBSS

Search strategy: We will search all sets of search terms (Table 2) using the advanced search feature. Test searches returned numerous extraneous results; searches will be limited to abstract and title, since all results will be screened against TIAB.

Search options:

- Limit results:
 - Publication date: 1 September 1994 – 15 January 2019
 - Language:
 - English
 - French
 - Spanish
 - Dutch
 - German
 - Source type: Scholarly journals
 - Peer-reviewed
 - Document type: Article (including original research articles), case report, case study, clinical trial, comparative study, correction/retraction, essay, evaluation studies, literature review, report, review, technical report
 - Exclude duplicate items

Search terms: (ti(abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND ti((cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*)) AND ti((cost* OR benefit* OR value* OR impact*)) AND la.exact("German" OR "Spanish" OR "English" OR "French" OR "Dutch")) AND (rtype.exact("Journal Article" OR "Article" OR "Review" OR "Comparative Study" OR "Case Study" OR "Literature Review" OR "Case_Study" OR "Evaluation Studies" OR "Research Article" OR "Case Reports" OR "article" OR "JOURNAL ARTICLE" OR "Original Research Articles" OR "review" OR "Review article" OR "Clinical Trial" OR "Research article" OR "CLINICAL TRIAL" OR "Clinical Trial, Phase I" OR "Literature_Review" OR "Case Report")) AND stype.exact("Scholarly Journals") AND PEER(yes))) OR (ab(abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND ab((cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*)) AND ab((cost* OR benefit* OR value* OR impact*)) AND la.exact("German" OR "Spanish" OR "English" OR "French" OR "Dutch" OR "English" OR "Spanish" OR "French" OR "German" OR "Dutch")) AND (rtype.exact("Journal Article" OR "Article" OR "Review" OR "Comparative Study" OR "Case Study" OR "Literature Review" OR "Case_Study" OR "Evaluation Studies" OR "Research Article" OR "Case Reports" OR "article" OR "JOURNAL ARTICLE" OR "Original Research Articles" OR "review" OR "Review article" OR "Clinical Trial" OR "Research article" OR "CLINICAL TRIAL" OR "Clinical Trial, Phase I" OR

"Literature_Review" OR "Case Report") AND stype.exact("Scholarly Journals") AND la.exact("ENG" OR "SPA" OR "FRE" OR "GER" OR "DUT") AND PEER(yes))

JSTOR

Search strategy: We will search all search terms (Table 2). Since JSTOR does not permit searches of the length necessary to capture all three sets of search terms in one search, we will conduct three separate searches, as detailed below. Searches will be conducted using the advanced search feature and 'all content' access type. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Content type: Articles
 - Publication date: From September 1994 to 15 January 2019
 - Narrowed by discipline:
 - Economics
 - Feminist & women's studies
 - Health policy
 - Health sciences
 - Population studies
 - Public health

Search terms for Search #1: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price*) AND (cost* OR benefit* OR value* OR impact*)

Search terms for Search #2: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (financ* OR fee* OR tax* OR expenditure*) AND (cost* OR benefit* OR value* OR impact*)

Search terms for Search #3: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (GDP OR "gross domestic product") AND (cost* OR benefit* OR value* OR impact*)

PubMed

Search strategy: We will search all sets of search terms (Table 2) using the advanced search builder. Test searches returned numerous extraneous results; we will limit searches to TIAB, since these results will be screened against TIAB.

Search options:

- Limit results:

- Publication dates: From 1 September 1994 to 15 January 2019
- Language:
 - English
 - French
 - Spanish
 - Dutch
 - German

Search terms: (((abort*[Title/Abstract] OR "termination of pregnancy"[Title/Abstract] OR "terminate pregnancy"[Title/Abstract] OR "pregnancy termination"[Title/Abstract] OR "pregnancy terminations"[Title/Abstract] OR postabortion[Title/Abstract] OR post-abortion[Title/Abstract])) AND (cost*[Title/Abstract] OR econom*[Title/Abstract] OR price*[Title/Abstract] OR financ*[Title/Abstract] OR fee*[Title/Abstract] OR tax*[Title/Abstract] OR expenditure*[Title/Abstract] OR GDP[Title/Abstract] OR "gross domestic product"[Title/Abstract] OR pay*[Title/Abstract] OR expens*[Title/Abstract])) AND (cost*[Title/Abstract] OR benefit*[Title/Abstract] OR value*[Title/Abstract] OR impact*[Title/Abstract]))

ScienceDirect

Search strategy: Since this database does not support wildcards (*) or more than eight Boolean connectors per field, we will search a modified set of abortion- and economic-related search terms (Table 2) using the advanced search feature. We will conduct three searches, as detailed below. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Article types: Review articles, research articles, case reports, data articles
 - Year(s): 1994-2019

Search terms for Search #1:

- Find articles with these terms: cost OR costs OR economic OR economics OR prices OR price OR finance OR fees OR fee Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Search terms for Search #2:

- Find articles with these terms: GDP OR "gross domestic product" OR pay OR payment OR payments OR expenses OR expense OR expensive OR tax
- Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Search terms for Search #3:

- Find articles with these terms: taxes OR expenditure OR expenditures

- Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Web of Science

Search strategy: We will search all sets of search terms (Table 2) using the advanced search feature and topic (TS) field tag.

Search options:

- Limit results:
 - Article types: Article, abstract of published item, early access
 - Year(s): 1994-2019
 - Language:
 - English
 - French
 - Spanish
 - Dutch
 - German

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

Ethics and dissemination

Formal ethical approval is not required, as primary data will not be collected in this study.

The findings of this scoping review will be used to create a framework to articulate the economic value, impact, and costs of abortion. This framework can be used for advocacy efforts in the field to increase access to cost-effective health services. This framework can also be used to inform future research efforts to address current evidence gaps in the field. The findings of this scoping review will be published in a peer-reviewed journal and circulated through relevant mailing lists and social media platforms. The findings will also be disseminated through conference presentations and as condensed summaries for key stakeholders and partners.

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Contributors

BM conceived the idea for the review, with inputs from EC and YR. EC, SRL, and YR designed and drafted the scoping protocol. EC and YR drafted the introduction section, SRL drafted the methods section, and BM drafted the ethics and dissemination section. All authors contributed to subsequent revisions and approved the protocol prior to its submission.

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Competing interests

We declare no competing interests.

Data sharing statement

The data extraction workbook and codebook are available as appendices.

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Author	Year	Journal	Country	Study Type	Study Objective	Study Design	Study Population	Study Interventions	Study Outcomes	Study Limitations	Study Strengths	Study Conclusions	Study Recommendations	Study Funding	Study Ethics	Study Registration	Study Availability	Study Reproducibility	Study Transparency	Study Reporting	Study Quality	Study Impact	Study Citation	Study Reference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Codebook

Variable	Question and instruction	Response options
Study ID	Number assigned to each article/study (e.g., 001, 002)	#
Author	First author's surname	Text
Study Name	Write the full name of the study or article.	Text
Publication Date	Year of publication	#
Other Publications	Detail any other publications linked to the study (e.g. papers describing methods, additional analyses)	Text
Exclusion criteria	State the exclusion criteria for the study, or state "none." <i>If study meets exclusion criteria, end data extraction.</i>	Text
Inclusion criteria	State the inclusion criteria for the study, or state "none."	Text
Publication Type\$1	Type of publication	1 = Peer-reviewed journal article 2 = Working paper 3 = Other
Publication Type\$2	If PubTyp = 3, give details.	Text 99 = not applicable
Language of publication		1 = English 2 = French 3 = German 4 = Dutch 5 = Spanish 6 = Other
Country	List all countries in which the study was conducted	Text
Country Income Group ¹	Country(ies) income group	1 = Low 2 = Lower-middle 3 = Upper-middle 4 = High + not OECD member 5 = High + OECD member 6 = Multiple
World region ²	World region(s)	1 = Africa 2 = Asia 3 = Europe 4 = Latin America and the Caribbean 5 = Northern America 6 = Oceania 7 = Multiple
Study objective	State the primary or main objective(s) or aim(s) of the study	Text
Geographic Level\$1	At which geographical level did the study occur?	1 = National 2 = Sub-national (e.g., region, state,

¹ World Bank Atlas method groupings of countries by income:

<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>

² WHO region groupings: Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania:

<https://unstats.un.org/unsd/methodology/m49/>

Variable	Question and instruction	Response options
		county, district, whole city) 3 = Local (e.g., village, neighborhood) 4 = Other 98 = Unclear/not specified
Geographic Level\$2	Give specific detail for previous response (e.g. Santillana district (17 villages, 6158 inhabitants). Provide name if only one location unit.	Text 99 = if GeoLv1\$1 = 98
Study Population\$1	What was the main identifying characteristic of the population/group/stratum the study targeted?	1 = Ethnic (or race) 2 = National 3 = Religion 4 = Language 5 = Indigenous 6 = Tribal 7 = Caste-based group/strata 8 = Geographical location (e.g. urban/rural, region, facility) 9 = Socio-economic 10 = Age (e.g. adolescents) 11 = Location 12 = Multiple answers from list 98 = Unclear/not specified 99 = Not applicable
Study Population\$2	Give specific detail for previous response (e.g., Hispanic American; urban poor; Muslim population). Use author's words (with quotation marks)	Text
Critical Outcome\$1A	Did the study report on the outcome 'costs of abortion-related care?' <i>'Costs' refer to the amount paid to obtain abortion-related care.</i>	0 = No 1 = Yes 98 = Unclear/not specified
Critical Outcome\$1B	At which level(s) did the study report on the outcome 'costs of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$1C	In the author's words, include the text describing the outcome 'costs of abortion-related care.'	Text 98 = Unclear/not specified 99 = If Outcom\$1A=0
Critical Outcome\$1D	Report all outcome data for 'costs of abortion-related care.'	Text 98 = Unclear/not specified 99 = If Outcom\$1A=0
Critical Outcome\$2A	Did the study report on the outcome 'economic impacts of abortion-related care?' <i>'Economic impacts' refer to the</i>	0 = No 1 = Yes 98 = Unclear/not specified

Variable	Question and instruction	Response options
	<i>economic effect or influence of abortion-related care.</i>	
Critical Outcome\$2B	At which level(s) did the study report on the outcome 'economic impacts of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$2C	In the author's words, include the text describing the outcome 'economic impacts of abortion-related care.'	Text 98 = Unclear/not specified 99 = If Outcom\$2A=0
Critical Outcome\$2D	Report all outcome data for 'economic impacts of abortion-related care.'	Text 98 = Unclear/not specified 99 = If Outcom\$2A=0
Critical Outcome\$3A	Did the study report on the outcome 'economic benefits of abortion-related care?' <i>'Economic benefits' refer to the advantages or profits gained from receiving abortion-related care.</i>	0 = No 1 = Yes 98 = Unclear/not specified
Critical Outcome\$3B	At which level(s) did the study report on the outcome 'economic benefits of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$3C	In the author's words, include the text describing the outcome 'economic benefits of abortion-related care.'	Text 98 = unclear/not specified 99 = If Outcom\$3A=0
Critical Outcome\$3D	Report all outcome data for 'economic benefits of abortion-related care.'	Text 98 = unclear/not specified 99 = If Outcom\$3A=0
Critical Outcome\$4A	Did the study report on the outcome 'value of abortion-related care?' <i>'Value' refers to the importance, worth, or usefulness of receiving abortion-related care.</i>	0 = No 1 = Yes 98 = Unclear/not specified
Critical Outcome\$4B	At which level(s) did the study report on the outcome 'value of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro

Variable	Question and instruction	Response options
		6 = Micro and macro 7 = All levels
Critical Outcome\$4C	In the author's words, include the text describing the outcome 'value of abortion-related care.'	Text 98 = unclear/not specified 99 = If Outcom\$4A=0
Critical Outcome\$4D	Report all outcome data for 'value of abortion-related care.'	Text 98 = unclear/not specified 99 = If Outcom\$4A=0
Secondary Outcome\$1A	Did the study report on the outcome 'abortion-related stigma?'	0 = No 1 = Yes 98 = Unclear/not specified
Secondary Outcome\$1B	At which level(s) did the study report on the outcome 'abortion-related stigma': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Secondary Outcome\$1C	In the author's words, include the text describing the outcome 'abortion-related stigma.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0
Secondary Outcome\$1D	Report all outcome data for 'abortion-related stigma.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0
Secondary Outcome\$2A	Did the study report on the outcome 'abortion-related discrimination?'	0 = No 1 = Yes 98 = Unclear/not specified
Secondary Outcome\$2B	At which level(s) did the study report on the outcome 'abortion-related discrimination': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Secondary Outcome\$2C	In the author's words, include the text describing the outcome 'abortion-related discrimination.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0
Secondary Outcome\$2D	Report all outcome data for 'abortion-related discrimination.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0
Secondary Outcome\$3A	Did the study report on the outcome 'abortion-related exclusion?'	0 = No 1 = Yes 98 = Unclear/not specified
Secondary Outcome\$3B	At which level(s) did the study report on the outcome 'abortion-related exclusion': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Secondary Outcome\$3C	In the author's words, include the text describing the outcome 'abortion-related exclusion.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0

Variable	Question and instruction	Response options
Secondary Outcome\$3D	Report all outcome data for 'abortion-related exclusion.'	Text 98 = unclear/not specified 99 = If Secondary Outcom\$1A=0
Additional Aims/Outcomes	What other aims and outcomes were described or measured? Give details. Mark measured outcomes with (o).	Text
Study Type\$1	What was the design of the study?	1 = Randomized controlled trial 2 = Controlled clinical trial 3 = Cohort analytic (two groups pre + post) 4 = Case-control 5 = Cohort (one group pre + post (before and after)) 6 = Interrupted time series 7 = Qualitative 8 = Mixed methods 9 = Other 98 = Unclear/not specified
Study Type\$2	Give details of answer above	Text 99 = Not applicable
Data Type	What type of data was presented in the evaluation findings/results?	1 = Quantitative 2 = Qualitative 3 = Both
Context	In what context was the study conducted? Give details (e.g. legal status of abortion, culture, gender norms, stigma).	Text
Notes	Include any notes you think are relevant	Text

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The economics of abortion: A scoping review protocol

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Title

The economics of abortion: A scoping review protocol

Authors

Corresponding author:

Ernestina Coast, PhD; Department of International Development, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, United Kingdom; e.coast@lse.ac.uk, tel. +44 20 7955 6335

Co-authors:

Samantha R. Lattof, PhD; Department of International Development, London, United Kingdom; s.lattof@lse.ac.uk

Yana van der Meulen Rodgers, PhD; Department of Labor Studies and Employment Relations; Department of Women's and Gender Studies; Rutgers University, Piscataway, New Jersey, USA; yana.rodgers@rutgers.edu

Brittany Moore, MS; Ipas, Chapel Hill, North Carolina, USA; mooreb@ipas.org

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Abstract

Introduction

Abortion is a common feature of people's reproductive lives. However, the economic implications of abortion and policies affecting abortion provision are poorly understood. This scoping review aims to systematically review social science literature for studies that have investigated the impact of abortion care (i.e., un/safe abortion, post-abortion care) or abortion policies on economic outcomes at the micro- (i.e., abortion seekers and their households), meso- (i.e., communities and health systems), and macro- (i.e., societies and nation states) levels. Informed by the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) reporting guideline for protocols, this protocol details the scoping review's methodological and analytical approaches.

Methods and analysis

This scoping review will utilize the PRISMA extension for Scoping Reviews (PRISMA-ScR) tool. Studies reporting on qualitative and/or quantitative data from any world region will be considered. For inclusion, studies must examine one of the following economic outcomes at the micro-, meso-, and/or macro-levels: costs, benefits, impacts, and/or value of abortion care or abortion policies. Searches will be conducted in eight electronic databases. We will conduct the searches and application of inclusion/exclusion criteria according to the PRISMA-ScR flow approach. No assessments of items' quality will be made, as the purpose of this scoping review is to synthesize and describe the coverage of the evidence. After extracting all data, we will inductively develop an economic framework around the economics of abortion. The analysis will synthesize the evidence base and identify knowledge gaps on the costs and benefits of abortion to stakeholders at various levels.

Ethics and dissemination

Formal ethical approval is not required, as primary data will not be collected in this study. The findings of this study will be disseminated through peer-reviewed publications, conference presentations, and condensed summaries for key stakeholders and partners in the field.

Strengths and limitations of this study

- This scoping review protocol is the first to focus on the economic costs, benefits, and impacts of abortion on individuals, households, communities, health systems, and societies.
- We use the PRISMA extension for Scoping Reviews (PRISMA-ScR) tool, the most current guidance on conducting scoping reviews, in order to ensure a systematic approach to searching, screening, and reporting.
- This study will search journals from interdisciplinary fields in order to maximise heterogeneity in the results.
- This scoping review may miss studies published outside of journals (e.g., book chapters, in-service reports, and other grey literature).
- The protocol includes a comprehensive data extraction template that addresses the multiple channels through which abortion can entail economic costs, impacts, and benefits.

Introduction

Abortion is a common feature of people's reproductive lives. An estimated 56 million induced abortions occur annually,¹ of which 54.9% (range 49.9%-59.4%, 90% C.I.) are unsafe.² Abortion care is a landscape in flux,³ with rapid increases in access to and use of pharmaceuticals to induce abortion⁴ and shifting national and international laws, policies, treaties, protocols and funding provision.^{5,6} However, the economic implications of abortion – and policies affecting abortion provision⁷ – are poorly understood. Relatively little evidence is of use to policymakers and influencers.⁸

A socio-ecological framework identifies three levels of factors – micro (abortion seekers and households), meso (communities and health systems) and macro (societies and nation states) – that help to understand the factors influencing access to abortion services.⁹ These three levels can also be used to consider the consequences of abortion care and abortion policies. There is increased recognition of the scale and consequences of unsafe abortion, including the costs for both women and health systems, in a range of legal settings.¹⁰ At the macro level, the total cost of post-abortion care to public health systems in many countries is likely to be substantial. Vlassoff et al. estimate that US\$171 million is spent annually to treat abortion complications in Africa.¹¹ In Zambia, post-abortion care following an unsafe abortion can cost the health system 2.5 times more than safe abortion care.¹²

At the micro-level, inequalities in accessing modern contraception and abortion care have been identified in many settings and are associated with individual characteristics including, but not limited to, economic circumstances. For example, in the United States, low-income women experience more financial and structural barriers to obtaining an abortion than higher-income women.¹³ In Mozambique, women obtaining illegal abortions were more likely to have less education, earn less income, and live in shantytowns compared to women obtaining legal, safe abortions with high hospital fees.¹⁴ Also related to income constraints, the inability of women living in poverty to afford oral contraception is associated with repeat abortions in France.¹⁵ The implication is that inequality in using contraceptive methods acts as a determinant affecting abortion behaviour in addition to (or even instead of) inequality in accessing abortion care.

A review of 28 studies on post-abortion care costs in Africa concluded that studies that addressed indirect costs (e.g., loss of productivity) were 'conspicuous by their absence'.^{8, p. 58} Most research focuses on out-of-pocket expenses that women incur for abortion complications. A Nigerian study of the direct costs for women treated for complications of unsafe abortion estimated that nearly three quarters of costs were shouldered by the woman and/or her household.¹⁶ A study from Burkina Faso found that the cost of induced abortion was considerably higher than spontaneous abortion,¹⁷ and this study did not account for any costs incurred by women prior to hospitalization.

Most studies do not consider the wider economic impact of abortion care seeking, such as opportunity costs (e.g., foregone work or education), and few studies include costs incurred throughout the care-seeking process beyond what is paid in hospital. Studies of two Asian countries considered women's loss of time and income.^{18, 19} Both found substantial losses for the women and their households. Sundaram et al.'s study of the costs of abortion care

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3 seeking in Uganda calculated the impact of associated expenses on the productivity of
4 women and other family members, as well as households' economic responses to unsafe
5 abortion (e.g., sales of assets).²⁰ They found that three quarters of women suffered loss of
6 productivity, and over a third experienced deterioration in their economic circumstances
7 following unsafe abortion.
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10 Rationale

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12 We know relatively little globally about the individual-level economic burden of seeking and
13 procuring abortion. Costs for individuals and their households do not start at point of
14 treatment; rather, costs are incurred directly and indirectly throughout the treatment
15 pathway (e.g., transport, food, accommodation, loss of income).^{21 22} Further, costs borne by
16 the poorest women with the least access to contraception and fewest resources are
17 especially high, though infrequently considered. Given these constraints, women's ability to
18 access resources to procure an abortion is important in every setting. Social and emotional
19 support for or against abortion care is linked to whether, and to whom, the pregnancy is
20 disclosed. A friend or partner providing support may influence the location and type of
21 abortion.²³
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26 Access to financial resources, frequently linked to social support, may be critical to a
27 woman's ability to obtain abortion information and services. In Latin American countries
28 where abortion is illegal, access to financial resources and emotional support were critical
29 for accessing a medically-supervised medical abortion in a clandestine clinic.²⁴ One quarter
30 of urban Mozambican women who sought a first trimester termination at a public hospital
31 delayed care in order to have sufficient funds to pay user fees.²⁵ A pregnancy has short- and
32 long-term direct and indirect costs for women; these may be exacerbated when the
33 pregnancy is unintended.²⁶ Individual circumstances influence whether abortion provides a
34 better outcome for a woman than bearing a child at that time, and women give many
35 reasons for having an abortion. For example, in Bangladesh, women and their husbands
36 described challenging life circumstances (poor health, poverty) that influenced their
37 decisions to terminate.²⁷ These examples from Latin America, Africa, and Asia bolster the
38 case for making a concerted effort to document the costs to women, households, and
39 societies of seeking and obtaining abortions.
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45 Economists have paid some attention to the relationship between abortion and various
46 economic outcomes at the meso- and macro-levels. Much of this literature focuses on the
47 economic impacts of abortion legalization rather than the pecuniary costs of abortion.
48 Several studies have linked the legalization of abortion to increases in women's labour
49 supply. For example, Kalist found that by reducing unwanted births, legalization of abortion
50 in the U.S. led to increased labour force participation rates for women, especially for single
51 black women.²⁸ Bloom et al. took this point one step further and found that lower fertility
52 (instrumented by the legalization of abortion) increases women's labour supply and
53 contributes positively and significantly to GDP growth.²⁹ Not only do abortion regulations
54 impact women's labour supply, but they also affect occupational mobility. In particular,
55 Targeted Restrictions on Abortion Providers (TRAP) laws in the United States make it more
56 difficult for women to seek an abortion and are linked to increased 'job lock;' consequently,
57 women living in states with TRAP laws are less likely to move between occupations and into
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3 higher-paying occupations.³⁰ The authors also find that public funding for medically
4 necessary abortions is associated with full-time occupational mobility for women.
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7 The legalization of abortion is also linked to various measures of children's human capital.
8 Several statistical studies have found positive outcomes for children born after the
9 legalization of abortion. In a widely-cited and somewhat controversial study for the U.S.,
10 Donohue and Levitt found that crime rates across states appear to have dropped as a result
11 of *Roe v. Wade*.³¹ Children who were born unwanted before the legalization of abortion
12 grew up in more disadvantaged households and they also grew up to be more
13 disadvantaged as adults. With similar reasoning, Ananat et al. found that U.S. children born
14 after the Supreme Court's 1973 *Roe v Wade* ruling were more likely to graduate from
15 college and less likely to be welfare recipients or single parents.³² Children's outcomes may
16 have improved on average because they were more likely to be born into a household in
17 which they were wanted. Romania's abortion ban is associated with worse educational
18 outcomes and labour market achievements of children born after the ban.³³ And in Sub-
19 Saharan Africa, abortion law liberalization is linked to greater parental investment in girls'
20 schooling, with the rationale that access to abortion lowers the likelihood of a girl child
21 dropping out of school in the event of an unplanned pregnancy.³⁴
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26 Scoping review objectives

27
28 We lack synthesis of the known economic consequences – at a variety of scales – of
29 abortion care and abortion policies. We aim to systematically review social science literature
30 for studies that have investigated the impact of abortion care (i.e. un/safe abortion, post-
31 abortion care) and abortion policies on economic outcomes at the micro-, meso-, and macro-levels.
32 To achieve this objective, the scoping review will answer the following question:
33

34 What are the economic costs, benefits and consequences of abortion care and policies at the
35 micro-, meso- and macro-levels?
36

37 Informed by the Preferred Reporting Items for Systematic reviews and Meta-Analyses
38 (PRISMA) reporting guideline for protocols,³⁵ this protocol details our pre-planned
39 methodological and analytical approaches.
40
41

42 Methods and analysis

43
44 Since we are interested in examining what is known about the economic consequences of
45 abortion care and abortion policies, and we expect to uncover varied evidence on this topic,
46 we will conduct a scoping review. Like systematic reviews, scoping reviews use a systematic
47 approach to searching, screening, and reporting.³⁶ Our scoping review will utilize the
48 PRISMA extension for Scoping Reviews (PRISMA-ScR) tool. Published in October 2018, this
49 innovative checklist is the most up-to-date guidance on conducting scoping reviews.³⁶
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51
52

53 Inclusion/exclusion criteria

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55 Studies published in peer-reviewed journals on induced abortion and/or post-abortion care
56 in any world region will be considered, provided that they report on qualitative and/or
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quantitative data.^a More specifically, these data must examine one of the following economic^b outcomes at the micro-, meso-, and/or macro-levels:

- Economic costs^c of abortion care or abortion policies
- Economic benefits^d of abortion care or abortion policies
- Economic impacts^e of abortion care or abortion policies
- Economic value^f of abortion care or abortion policies

As indicated in the PICOTS criteria in Table 1, the screening criteria differ depending on the level (micro-, meso-, macro-) at which the study occurred. Specifically, the population changes to account for the fact that we are examining evidence from the individual level to the national level.

Items must be published in peer-reviewed journals or in the National Bureau of Economic Research's (NBER) peer-reviewed working paper series, which is considered to be a gold standard in the field of economics. Any NBER working paper that is subsequently published in a peer-reviewed journal will only be considered in its final published version.

Items must be published in English, French, Spanish, Dutch, or German. This review includes studies published from 1 September 1994 to 15 January 2019.

Table 1. PICOTS criteria used in the scoping review

PICOTS	Micro-level	Meso-level	Macro-level
Populations	Girls and women who obtained abortions or post-abortion care and members of their households	Communities and health systems in which girls and women obtain abortions or post-abortion care	Societies and nation states in which girls and women obtain abortions or post-abortion care
Interventions	Induced abortion (safe/unsafe), post-abortion care, and/or abortion policies		
Control	None		
Outcomes	Quantitative or qualitative data on: <ul style="list-style-type: none"> - economic costs of abortion care or abortion policies - economic impacts of abortion care or abortion policies - economic benefits of abortion care or abortion policies - economic value of abortion care or abortion policies 		
Timeframe	1 September 1994 to 15 January 2019		

^a These data may include policy and legal documents.

^b Our approach includes economic outcomes related to human capital and women's reproductive labor that are not directly quantified in monetary terms. Such outcomes could include education, mothering, and care work.

^c 'Economic costs' refer to the amount paid to obtain abortion care or adverse financial outcomes resulting from the implementation of abortion policies.

^d 'Economic benefits' refer to the advantages or profits gained from receiving abortion care or from the implementation of abortion policies.

^e 'Economic impacts' refer to the economic effect or influence of abortion care or abortion policies.

^f 'Economic value' refers to the importance, worth, welfare gains, or utility from receiving abortion care or of the implementation of abortion policies.

Setting	Any
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Items will be excluded if they focus on missed abortion, threatened abortion, or miscarriage. In addition, we will exclude policy briefs, books, book chapters, editorials, commentaries, and published or unpublished reports from governments and other agencies. By limiting included items to peer-reviewed journal articles or NBER working papers that have been subjected to the scrutiny of other experts in the field, we increase the possibility that our scoping review will include items with lower likelihood of the inclusion of errors.³⁷

Search strategy and terms

After first assessing electronic databases for their relevance and coverage of the literature, we selected eight electronic databases for searching:

- Cumulative Index to Nursing and Allied Health (CINAHL)
- EconLit
- Excerpta Medica Database (EMBASE)
- International Bibliography of the Social Sciences (IBSS)
- JSTOR
- PubMed
- ScienceDirect
- Web of Science

These sources will be searched using combinations of relevant search terms that we developed and tested for sensitivity in advance of the scoping review. The terms, detailed in Table 2, will be adapted to the basic search particulars (e.g., wildcards (*) and truncations, capacity for complex searches) of each electronic database. We will supplement these searches with expert-recommended articles. To obtain these articles, we will develop a standardized email asking for suggested articles that we will send to a list of abortion researchers. Any suggested articles will be incorporated into our PRISMA flowchart.

Table 2. Search terms and their combinations

1. Abortion terms	2. Economic terms	3. Impact terms
abort*	cost*	cost*
termination of pregnancy	econom*	benefit*
terminate pregnancy	price*	value*
pregnancy termination	financ*	impact*
pregnancy terminations	resource*	
postabortion	fee*	
post-abortion	tax*	
	expenditure*	
	GDP	
	gross domestic product	
	pay*	
	expens*	

1
2
3 The impact terms are broad enough to capture numerous terms that are directly related to
4 economic outcomes, such as health, education, and income. These outcomes capture the
5 mechanisms through which abortions may have economic consequences for individuals,
6 households, and even the macroeconomy. The impact terms “value” and “benefit” are not
7 meant to be mutually exclusive; they are common terms in studies on the economics of
8 abortion. By including them both in the screening process, we are less likely to miss a
9 relevant study.
10
11

12 Screening process

13
14
15 To ensure compatibility with the standards expected of a scoping review for peer-reviewed
16 publication, we will conduct the searches and application of inclusion/exclusion criteria
17 according to the PRISMA-ScR flow approach.³⁶ No assessments of items’ quality will be
18 made, as the purpose of this scoping review is to synthesize and describe the coverage of
19 the evidence.
20
21

22
23 Once the searches are conducted, citation abstracts for all items will be exported into
24 EndNote for screening. After removing duplicates, the remaining items will be screened for
25 inclusion, initially on the basis of title and abstract (TIAB). When inclusion or exclusion
26 cannot be determined on the basis of TIAB, the person screening the item will move the
27 item forward for full-text screening. To assure quality in TIAB screening, EC, EZ, SL, and YR
28 will simultaneously screen 100 randomly selected items for inclusion. Based on our results,
29 we will adjust the inclusion/exclusion criteria as necessary. If the results of our individual
30 screenings differ, we will screen an additional 100 randomly selected items for inclusion on
31 TIAB based on the refined inclusion/exclusion criteria. The process will be repeated until we
32 reach agreement. The remaining items will then be divided amongst the authors, CP, and EZ
33 for full-text screening. Following the full-text screening, studies recommended for exclusion
34 will be reviewed by a second researcher to ensure consistency in the application of
35 exclusion criteria.
36
37
38

39 Data extraction

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41
42 BM, CP, EC, EZ, SL, and YR will simultaneously extract data into Excel for five randomly
43 selected studies in order to assure quality in data extraction. Following this check for quality
44 assurance, which will be repeated until agreement is reached, we will divide the remaining
45 included studies for data extraction. Data will be extracted on the following categories:

- 46 • Background information (e.g., author, date, setting, study objective)
- 47 • Population
- 48 • Details of relevant outcomes (both quantitative and qualitative) at the micro-,
49 meso-, and macro-levels
 - 50 ○ Financial cost (the amount paid to obtain abortion care, including
51 transportation costs and opportunity costs when relevant) or adverse
52 financial outcomes from abortion policies
 - 53 ○ Impact (the effect or influence of abortion care or abortion policies)
 - 54 ○ Benefit (advantages or profits gained from receiving abortion care or
55 implementing abortion policies)
 - 56
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- Value (the importance, worth, welfare gains, or utility of receiving abortion care or implementing abortion policies)
- Secondary outcome data on abortion-related stigma, discrimination, and exclusion
- Context in which the study was conducted (e.g., legal status of abortion, culture, gender norms)

Since this scoping review intends to synthesize and describe the coverage of the evidence, we will not assess the risk of bias of individual studies. A detailed data extraction template is available in Appendix A, and the accompanying codebook is available in Appendix B.

Data synthesis

After extracting all data, we will inductively develop an economic framework around the economics of abortion. The analysis will synthesize the evidence base and identify knowledge gaps on the costs, impacts, and benefits of abortion to stakeholders at the micro-, meso-, and macro-levels. At the micro-level, we will provide a comprehensive examination of women's decision-making around contraceptive use, fertility, and abortion. The framework is based on a set of economics tools related to marginal cost and risk avoidance, and it generates a number of scenarios showing how changes in the cost and availability of modern contraceptive methods and access to safe abortion can impact the health, well-being, and economic status of women and their households.

At the meso-level, we will consider the economic costs and impacts of abortion care to communities and health systems and also how health systems bear the costs of abortion restrictions that may increase the number of women seeking post-abortion care.

Finally, at the macro-level, we will explore how liberalizing or restricting abortion legislation impacts broad aggregates such as women's labour force participation, women's education, investment in children's human capital, and economic growth. Women's ability to control the timing and number of births through access to modern contraception is linked to higher maternal age at first birth, fewer children, and longer birth intervals. These factors are all linked to improved maternal health, which not only helps women but also has repercussions for healthcare costs and the overall macroeconomy through investment in women's human capital and that of their children. Furthermore, the relationship between women's socioeconomic status and the likelihood of using abortion enables us to infer the types of labour market opportunities for women who had abortions relative to those who did not.

We will report the data using a systematic narrative synthesis in which the results are presented narratively and organised thematically, supplemented with tables of descriptive statistics on included studies and their outcomes.

Patient and public involvement

The design of this scoping review protocol did not involve patients. However, patients' experiences are central to the research question and outcome measures. At the micro-level,

our analyses will synthesize the evidence base and identify evidence gaps on the costs and benefits of abortion to girls and women seeking abortions and their households.

Final search strategy by database

The full electronic search strategies for all databases, including limits used, appear below.

CINAHL

Search strategy: We will search all sets of search terms (Table 2).

Search options:

- Search mode: Boolean/phrase
- Limit results:
 - Published date: September 1994 to January 2019

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

EconLit

Search strategy: We will search all sets of search terms (Table 2).

Search options:

- Search mode: Boolean/phrase
- Limit results:
 - Published date: September 1994 to January 2019

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

EMBASE

Search strategy: We will search modified sets of search terms (Table 2) using the multi-field search. Since EMBASE does not recognize the use of quotation marks for multi-word phrases, searches would include results with the word 'of' (from 'termination of pregnancy'). To exclude the 'of' from searches, we will modify the abortion-related search terms, as detailed below. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Publication year: 1994 – 15 January 2019

Search terms: (abort* OR postabortion OR post-abortion OR (terminat* AND pregnancy)) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

IBSS

Search strategy: We will search all sets of search terms (Table 2) using the advanced search feature. Test searches returned numerous extraneous results; searches will be limited to abstract and title, since all results will be screened against TIAB.

Search options:

- Limit results:
 - Publication date: 1 September 1994 – 15 January 2019
 - Language:
 - English
 - French
 - Spanish
 - Dutch
 - German
 - Source type: Scholarly journals
 - Peer-reviewed
 - Document type: Article (including original research articles), case report, case study, clinical trial, comparative study, correction/retraction, essay, evaluation studies, literature review, report, review, technical report
 - Exclude duplicate items

Search terms: (ti(abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND ti((cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*)) AND ti((cost* OR benefit* OR value* OR impact*)) AND la.exact("German" OR "Spanish" OR "English" OR "French" OR "Dutch") AND (rtype.exact("Journal Article" OR "Article" OR "Review" OR "Comparative Study" OR "Case Study" OR "Literature Review" OR "Case_Study" OR "Evaluation Studies" OR "Research Article" OR "Case Reports" OR "article" OR "JOURNAL ARTICLE" OR "Original Research Articles" OR "review" OR "Review article" OR "Clinical Trial" OR "Research article" OR "CLINICAL TRIAL" OR "Clinical Trial, Phase I" OR "Literature_Review" OR "Case Report") AND stype.exact("Scholarly Journals") AND PEER(yes))) OR (ab(abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND ab((cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*)) AND ab((cost* OR benefit* OR value* OR impact*)) AND la.exact("German" OR

"Spanish" OR "English" OR "French" OR "Dutch" OR "English" OR "Spanish" OR "French" OR "German" OR "Dutch") AND (rtype.exact("Journal Article" OR "Article" OR "Review" OR "Comparative Study" OR "Case Study" OR "Literature Review" OR "Case_Study" OR "Evaluation Studies" OR "Research Article" OR "Case Reports" OR "article" OR "JOURNAL ARTICLE" OR "Original Research Articles" OR "review" OR "Review article" OR "Clinical Trial" OR "Research article" OR "CLINICAL TRIAL" OR "Clinical Trial, Phase I" OR "Literature_Review" OR "Case Report") AND stype.exact("Scholarly Journals") AND la.exact("ENG" OR "SPA" OR "FRE" OR "GER" OR "DUT") AND PEER(yes))

JSTOR

Search strategy: We will search all search terms (Table 2). Since JSTOR does not permit searches of the length necessary to capture all three sets of search terms in one search, we will conduct three separate searches, as detailed below. Searches will be conducted using the advanced search feature and 'all content' access type. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Content type: Articles
 - Publication date: From September 1994 to 15 January 2019
 - Narrowed by discipline:
 - Economics
 - Feminist & women's studies
 - Health policy
 - Health sciences
 - Population studies
 - Public health

Search terms for Search #1: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price*) AND (cost* OR benefit* OR value* OR impact*)

Search terms for Search #2: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (financ* OR fee* OR tax* OR expenditure*) AND (cost* OR benefit* OR value* OR impact*)

Search terms for Search #3: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (GDP OR "gross domestic product") AND (cost* OR benefit* OR value* OR impact*)

PubMed

Search strategy: We will search all sets of search terms (Table 2) using the advanced search builder. Test searches returned numerous extraneous results; we will limit searches to TIAB, since these results will be screened against TIAB.

Search options:

- Limit results:
 - Publication dates: From 1 September 1994 to 15 January 2019
 - Language:
 - English
 - French
 - Spanish
 - Dutch
 - German

Search terms: (((abort*[Title/Abstract] OR "termination of pregnancy"[Title/Abstract] OR "terminate pregnancy"[Title/Abstract] OR "pregnancy termination"[Title/Abstract] OR "pregnancy terminations"[Title/Abstract] OR postabortion[Title/Abstract] OR post-abortion[Title/Abstract])) AND (cost*[Title/Abstract] OR econom*[Title/Abstract] OR price*[Title/Abstract] OR financ*[Title/Abstract] OR fee*[Title/Abstract] OR tax*[Title/Abstract] OR expenditure*[Title/Abstract] OR GDP[Title/Abstract] OR "gross domestic product"[Title/Abstract] OR pay*[Title/Abstract] OR expens*[Title/Abstract])) AND (cost*[Title/Abstract] OR benefit*[Title/Abstract] OR value*[Title/Abstract] OR impact*[Title/Abstract]))

ScienceDirect

Search strategy: Since this database does not support wildcards (*) or more than eight Boolean connectors per field, we will search a modified set of abortion- and economic-related search terms (Table 2) using the advanced search feature. We will conduct three searches, as detailed below. Results will be aggregated with duplicates removed before they are added to Endnote.

Search options:

- Limit results:
 - Article types: Review articles, research articles, case reports, data articles
 - Year(s): 1994-2019

Search terms for Search #1:

- Find articles with these terms: cost OR costs OR economic OR economics OR prices OR price OR finance OR fees OR fee Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Search terms for Search #2:

- Find articles with these terms: GDP OR "gross domestic product" OR pay OR payment OR payments OR expenses OR expense OR expensive OR tax

- Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Search terms for Search #3:

- Find articles with these terms: taxes OR expenditure OR expenditures
- Title, abstract or keywords: abortion OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion

Web of Science

Search strategy: We will search all sets of search terms (Table 2) using the advanced search feature and topic (TS) field tag.

Search options:

- Limit results:
 - Article types: Article, abstract of published item, early access
 - Year(s): 1994-2019
 - Language:
 - English
 - French
 - Spanish
 - Dutch
 - German

Search terms: (abort* OR "termination of pregnancy" OR "terminate pregnancy" OR "pregnancy termination" OR "pregnancy terminations" OR postabortion OR post-abortion) AND (cost* OR econom* OR price* OR financ* OR fee* OR tax* OR expenditure* OR GDP OR "gross domestic product" OR pay* OR expens*) AND (cost* OR benefit* OR value* OR impact*)

Ethics and dissemination

Formal ethical approval is not required, as primary data will not be collected in this study.

The findings of this scoping review will be used to create a framework to articulate the economic value, impact, and costs of abortion. This framework can be used for advocacy efforts in the field to increase access to cost-effective health services. This framework can also be used to inform future research efforts to address current evidence gaps in the field. The findings of this scoping review will be published in a peer-reviewed journal and circulated through relevant mailing lists and social media platforms. The findings will also be disseminated through conference presentations and as condensed summaries for key stakeholders and partners.

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3 If we need to amend this protocol following its publication, we will provide the date of each
4 amendment, describe the change(s), and report the rationale for the change(s) in future
5 publications arising from this protocol.
6
7

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10
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14
15

16 17 **Contributors**

18
19 BM conceived the idea for the review, with inputs from EC and YR. EC, SRL, and YR designed
20 and drafted the scoping protocol. EC and YR drafted the introduction section, SRL drafted
21 the methods section, and BM drafted the ethics and dissemination section. All authors
22 contributed to subsequent revisions and approved the protocol prior to its submission. EC is
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24
25

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32
33

34 35 **Competing interests**

36
37 We declare no competing interests.
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40 41 **Data sharing statement**

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43 The data extraction workbook and codebook are available as appendices.
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Number assigned
to each
Reviewer's article/study (e.g., First author's
initials 001, 002) surname Write the full name of the study or article.

Reviewer Study ID Author Study Name

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	State the exclusion criteria for the study, or state "none."	State the inclusion criteria for the study.	Type of publication	If PubTyp = 3, give details.
Publication Date	Exclusion Criteria	Inclusion Criteria	Type\$1	Publication Type\$2
Year of publication	"none."		publication	

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Detail any other publications linked to the study (e.g. papers describing methods, additional analyses)

Assumed sex of the first author based on first name

Language of Publication

List all countries in which the study was conducted

Country(ies) income group

Other Publications

First Author's Sex

Language of Publication

Country

Country Income Group

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			Give specific detail for previous response (e.g. Santillana district (17 villages, 6158 inhabitants). Provide name if only one location unit.	What was the main identifying characteristic of the population/group/stratum targeted?
World region(s)	State the primary or main objective(s)/aim(s) of the study	At which geographical level did the study occur?	Geographic Level\$2	Study Population\$1
World Region	Study Objective	Geographic Level\$1	Geographic Level\$2	Study Population\$1

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3	Give specific detail	Did the study			
4	for previous	report on the			
5	response (e.g.,	outcome 'costs of		In the author's	
6	Hispanic	abortion-related	At which level(s)	words, include the	
7	American; urban	care?'	did the study	text describing the	
8	poor; Muslim		report on the	definition and/or	Report, by level,
9	population). Use	'Costs' refer to the	outcome 'costs of	methodology used	all outcome data
10	author's words	<i>amount paid to</i>	abortion-related	for the outcome	for 'costs of
11	(with quotation	<i>obtain abortion-</i>	care': micro, meso,	'costs of abortion-	abortion-related
12	marks)	<i>related care.</i>	or macro?	related care.'	care.'
13					
14	Study	Critical	Critical	Critical	Critical
15	Population\$2	Outcome\$1A	Outcome\$1B	Outcome\$1C	Outcome\$1D
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2	on the outcome			report on the
3	'economic impacts			outcome 'economic
4	of abortion-related		In the author's	benefits of abortion-
5	care?'	At which level(s)	words, include the	related care?'
6		did the study	text describing the	
7	'Economic impacts'	report on the	definition and/or	'Economic benefits'
8	refer to the	outcome 'economic	methodology used	refer to the
9	economic effect or	impacts of abortion-	for the outcome	outcome data for
10	influence of	related care':	'economic impacts	'economic impacts of
11	abortion-related	micro, meso, or	of abortion-	abortion-related
12	care.	macro?	related care.'	care.'
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14	Critical	Critical	Critical	Critical
15	Outcome\$2A	Outcome\$2B	Outcome\$2C	Critical Outcome\$2D Outcome\$3A
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			report on the outcome 'value of abortion-related care?'	
At which level(s) did the study report on the outcome 'economic benefits of abortion- related care': micro, meso, or macro?	In the author's words, include the text describing the definition and/or methodology used for the outcome 'economic benefits of abortion- related care.'	Report all outcome data for 'economic benefits of abortion- related care.'	<i>'Value' refers to the importance, worth, or usefulness of receiving abortion- related care.</i>	At which level(s) did the study report on the outcome 'value of abortion-related care': micro, meso, or macro?
Critical Outcome\$3B	Critical Outcome\$3C	Critical Outcome\$3D	Critical Outcome\$4A	Critical Outcome\$4B

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4			Did the study	
5	In the author's		report on the	In the author's
6	words, include the		outcome 'abortion-	words, include the
7	text describing the		related stigma?'	text describing the
8	definition and/or			definition and/or
9	methodology used	Report all	<i>This includes</i>	methodology used
10	for the outcome	outcome data for	<i>abortion-related</i>	for the outcome
11	'value of abortion-	'value of abortion-	<i>discrimination and</i>	'abortion-related
12	related care.'	related care.'	<i>exclusion.</i>	stigma.'
13				
14	Critical	Critical	Secondary	Secondary
15	Outcome\$4C	Outcome\$4D	Outcome\$1A	Outcome\$1B
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Report all outcome data for 'abortion-related stigma.' Secondary Outcome\$1D	What other economic-related aims and outcomes were described or measured? Give details. Mark measured outcomes with (o). Additional Aims/Outcomes	What was the design of the study? Study Type\$1	Give details of answer above Study Type\$2	What type of data were presented in the evaluation findings/results? Data Type
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In what context was the study conducted? Give details (e.g. legal status of abortion, culture, gender norms). Include any notes you think are relevant

Context	Notes	Notes 2 (continued)	Notes 3 (continued)
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Codebook

Variable	Question and instruction	Response options
Reviewer	State your initials	BM CP EC EZ SL YR
Study ID	Number assigned to each article/study (e.g., 001, 002)	#
Author	First author's surname	Text
Study Name	Write the full name of the study or article.	Text
Publication Date	Year of publication	#
Exclusion Criteria	State the exclusion criteria for the study, or state "none." <i>If study meets exclusion criteria, end data extraction.</i>	Text
Inclusion Criteria	Does this study meet all inclusion criteria? Check PICOTS, language, year, and publication type (peer-review journal article or NBER working paper). If all criteria are met, state "all." <i>If all of the inclusion criteria are not met, return to "exclusion criteria."</i>	All
Publication Type\$1	Type of publication	1 = Peer-reviewed journal article 2 = NBER working paper 3 = Other
Publication Type\$2	If PubTyp = 3, give details.	Text 99 = not applicable
Other Publications	Detail any other publications linked to the study (e.g. papers describing methods, additional analyses)	Text
First Author's Sex	Indicate if the first author's first name suggests whether the author is a man or a woman. When the name could be unisex (e.g. Sam, Alex), is an initial, or is unclear to which sex it belongs, mark option 3.	1 = Woman 2 = Man 3 = Unclear
Language of publication		1 = English 2 = French 3 = German 4 = Dutch 5 = Spanish 6 = Other

Variable	Question and instruction	Response options
Country	List all countries in which the study was conducted	Text
Country Income Group ¹	Country(ies) income group	1 = Low 2 = Lower-middle 3 = Upper-middle 4 = High 5 = Multiple
World Region ²	World region(s)	1 = Africa 2 = Asia 3 = Europe 4 = Latin America and the Caribbean 5 = Northern America 6 = Oceania 7 = Multiple
Study objective	State the primary or main objective(s) or aim(s) of the study	Text
Geographic Level\$1	At which geographical level did the study occur?	1 = National 2 = Sub-national (e.g., region, state, county, district, whole city) 3 = Local (e.g., village, neighborhood) 4 = Health facility 5 = Other 98 = Unclear/not specified
Geographic Level\$2	Give specific detail for previous response (e.g. Santillana district (17 villages, 6158 inhabitants). Provide name if only one location unit.	Text 99 = if GeoLv1\$1 = 98
Study Population\$1	What was the main identifying characteristic of the population/group/stratum the study targeted?	1 = Ethnic (or race) 2 = National 3 = Religion 4 = Language 5 = Indigenous, tribal, or caste-based 6 = Geographical location (e.g. urban/rural, region, facility) 7 = Socio-economic 8 = Age (e.g. adolescents) 9 = Status as abortion seeker 10 = Multiple answers from list 11 = Other, specify 12 = Abortion providers 98 = Unclear/not specified 99 = Not applicable
Study Population\$2	Give specific detail for previous response (e.g., Hispanic American;	Text

¹ World Bank Atlas method groupings of countries by income:

<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>

² WHO region groupings: Africa, Asia, Europe, Latin America and the Caribbean, Northern America, Oceania:

<https://unstats.un.org/unsd/methodology/m49/>

Variable	Question and instruction	Response options
	urban poor; Muslim population). Use author's words (with quotation marks)	
Critical Outcome\$1A	Did the study report on the outcome 'costs of abortion-related care?' <i>'Costs' refer to the amount paid to obtain abortion-related care.</i>	0 = No --> go to Critical Outcome\$2A 1 = Yes 98 = Unclear/not specified
Critical Outcome\$1B	At which level(s) did the study report on the outcome 'costs of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$1C	In the author's words, include the text describing the definition and/or methodology used for the outcome 'costs of abortion-related care.'	Text 98 = Unclear/not specified
Critical Outcome\$1D	Report all outcome data for 'costs of abortion-related care.'	Text 98 = Unclear/not specified
Critical Outcome\$2A	Did the study report on the outcome 'economic impacts of abortion-related care?' <i>'Economic impacts' refer to the economic effect or influence of abortion-related care.</i>	0 = No --> go to Critical Outcome\$3A 1 = Yes 98 = Unclear/not specified
Critical Outcome\$2B	At which level(s) did the study report on the outcome 'economic impacts of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$2C	In the author's words, include the text describing the definition and/or methodology used for the outcome 'economic impacts of abortion-related care.'	Text 98 = Unclear/not specified
Critical Outcome\$2D	Report all outcome data for 'economic impacts of abortion-related care.'	Text 98 = Unclear/not specified
Critical Outcome\$3A	Did the study report on the outcome 'economic benefits of abortion-related care?'	0 = No --> go to Critical Outcome\$4A 1 = Yes 98 = Unclear/not specified

Variable	Question and instruction	Response options
	<i>'Economic benefits' refer to the advantages or profits gained from receiving abortion-related care.</i>	
Critical Outcome\$3B	At which level(s) did the study report on the outcome 'economic benefits of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$3C	In the author's words, include the text describing the definition and/or methodology used for the outcome 'economic benefits of abortion-related care.'	Text 98 = unclear/not specified
Critical Outcome\$3D	Report all outcome data for 'economic benefits of abortion-related care.'	Text 98 = unclear/not specified
Critical Outcome\$4A	Did the study report on the outcome 'value of abortion-related care?' <i>'Value' refers to the importance, worth, or usefulness of receiving abortion-related care.</i>	0 = No --> go to Secondary Outcome\$1A 1 = Yes 98 = Unclear/not specified
Critical Outcome\$4B	At which level(s) did the study report on the outcome 'value of abortion-related care': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro 6 = Micro and macro 7 = All levels
Critical Outcome\$4C	In the author's words, include the text describing the definition and/or methodology used for the outcome 'value of abortion-related care.'	Text 98 = unclear/not specified
Critical Outcome\$4D	Report all outcome data for 'value of abortion-related care.'	Text 98 = unclear/not specified
Secondary Outcome\$1A	Did the study report on the outcome 'abortion-related stigma?' <i>This includes abortion-related discrimination and exclusion.</i>	0 = No --> go to Secondary Outcome\$2A 1 = Yes 98 = Unclear/not specified
Secondary Outcome\$1B	At which level(s) did the study report on the outcome 'abortion-related stigma': micro, meso, macro	1 = Micro 2 = Meso 3 = Macro 4 = Micro and meso 5 = Meso and macro

Variable	Question and instruction	Response options
		6 = Micro and macro 7 = All levels 98 = unclear/not specified
Secondary Outcome\$1C	In the author's words, include the text describing the definition and/or methodology used for the outcome 'abortion-related stigma.'	Text 98 = unclear/not specified
Secondary Outcome\$1D	Report all outcome data for 'abortion-related stigma.'	Text 98 = unclear/not specified
Additional Aims/Outcomes	What other aims and outcomes were described or measured? Give details. Mark measured outcomes with (o).	Text
Study Type\$1	What was the design of the study?	1 = Randomized controlled trial 2 = Controlled clinical trial 3 = Cohort analytic (two groups pre + post) 4 = Case-control 5 = Cohort (one group pre + post (before and after)) 6 = Interrupted time series 7 = Qualitative 8 = Mixed methods 9 = Other 10 = Regression analysis 98 = Unclear/not specified
Study Type\$2	Give details of answer above	Text 99 = Not applicable
Data Type	What type of data was presented in the evaluation findings/results?	1 = Quantitative 2 = Qualitative 3 = Both
Context	In what context was the study conducted? Give details (e.g. legal status of abortion, culture, gender norms, stigma).	Text
Notes	Include any notes you think are relevant	Text

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item	Checklist item	Reported on page
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not applicable
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	Not registered
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	16
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	15
Support:			
Sources	5a	Indicate sources of financial or other support for the review	16
Sponsor	5b	Provide name for the review funder and/or sponsor	16
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	16
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	5-6
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	6
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	6-8

Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	6-8
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	11-15
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	9
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	9
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	9-10
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	9-10
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	9-10
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	10
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	10
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2 , Kendall's τ)	10
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	10
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	Not applicable
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	10
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	2, 9

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.